

CSCI 3104
Problem Set 7

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(b) (5 pts) An *edge list* representation. Assume vertices have arbitrary labels.

If Dumbledore uses an edge list representation, we use an array of two vertex numbers to represent an edge. The list of pairs indicates an edge of the graph and if there's an edge, it is represented as a 1, if not, represented as 0.

In order to get the in- and out-degree, we access all edges of the graph.

Time complexity depends on the number of edges in the graph so $O(E)$.